

What is claimed is:

1 1. A backlight unit for a liquid crystal display,
2 comprising a light source having a plurality of basic
3 cell structures, wherein each basic cell structure
4 consists of three unique colors of first, second, and
5 third light emitting diodes, arranged in a first
6 equilateral triangle.

1 2. The backlight unit as claimed in claim 1,
2 wherein the first light emitting diode is red, the second
3 light emitting diode is green, and the third light
4 emitting diode is blue.

1 3. The backlight unit as claimed in claim 2,
2 wherein the quantities of the red, the blue, and the
3 green light emitting diodes are in a ratio of 1:1:2.

1 4. The backlight unit as claimed in claim 1,
2 wherein three of the basic cell structures are arranged
3 in a second equilateral triangle.

1 5. The backlight unit as claimed in claim 4,
2 further comprising a fourth light emitting diode,
3 disposed in the center of the second equilateral
4 triangle.

1 6. The backlight unit as claimed in claim 5,
2 wherein the fourth light emitting diode is green.

1 7. The backlight unit as claimed in claim 1,
2 wherein intensity of the light produced by the basic cell

structures is varied by varying power to one of the light emitting diodes.

8. The backlight unit as claimed in claim 7, wherein the power to the second light emitting diode is twice that of the first or the third light emitting diodes.

9. The backlight unit as claimed in claim 1, further comprising a planar surface, on which the light source is disposed.

10. The backlight unit as claimed in claim 1, further comprising a dispersion device and a light controlling device, provided above the light source to control produced light.

11. A liquid crystal display, comprising a backlight unit, further comprising a light source having a plurality of basic cell structures, wherein each basic cell structure consists of three unique colors of first, second, and third light emitting diodes, arranged in a first equilateral triangle.

12. The liquid crystal display as claimed in claim 11, wherein the first light emitting diode is red, the second light emitting diode is green, and the third light emitting diode is blue.

13. The liquid crystal display as claimed in claim 12, wherein the quantities of the red, the blue, and the green light emitting diodes are in a ratio of 1:1:2.

1 14. The liquid crystal display as claimed in claim
2 11, wherein three of the basic cell structures are
3 arranged in a second equilateral triangle.

1 15. The liquid crystal display as claimed in claim
2 14, further comprising a fourth light emitting diode,
3 disposed in the center of the second equilateral
4 triangle.

1 16. The liquid crystal display as claimed in claim
2 15, wherein the fourth light emitting diode is green.

1 17. The liquid crystal display as claimed in claim
2 11, wherein intensity of the light produced by the basic
3 cell structures is varied by varying power to one of the
4 light emitting diodes.

1 18. The liquid crystal display as claimed in claim
2 17, wherein power to the second light emitting diode is
3 twice that of the first or the third light emitting
4 diodes.

1 19. The liquid crystal display as claimed in claim
2 11, further comprising a planar surface, on which the
3 light source is disposed.

1 20. The liquid crystal display as claimed in claim
2 11, further comprising a dispersion device and a light
3 controlling device, provided above the light source to
4 control produced light.